CLAIMS

1. Method of detecting from a vehicle variations in path, in particular a bend or straight line, on a road comprising a surface (1) and road edges (2, 3), characterised in that it comprises the following operations:

- taking an image of a road scene unfolding in front of the vehicle and at least partly illuminated by the vehicle,

- determining, for each pixel in the image, a light decrease gradient,

- analysing these light gradients and determining an image of the road edges,

- mathematically discriminating the gradients from the image of the road edges,

- analysing this discrimination and determining the angle of the bend.

2. Method of detecting a bend according to Claim 1, characterised in that the gradient of an elementary image part corresponds to a decrease vector of the light formed between adjacent pixels.

3. Method of detecting a bend according to Claim 2, characterised in that the analysis of the decrease gradients consists of a thresholding of the decrease vectors and an elimination of the decrease vectors outside the threshold.

4. Method of detecting a bend according to either one of Claims 2 and 3, characterised in that the mathematical discretisation consists of counting the elementary image parts having a vector oriented in one direction and the elementary image parts have a decrease vector oriented in the opposite direction.

5. Method of detecting a bend according to Claim 4, characterised in that the counting of the elementary image parts is carried out pixel column by pixel column, or by groups of pixel columns.

6. Method of detecting a bend according to any one of Claims 1 to 5, characterised in that the analysis of the discrimination is carried out by a neural network.

7. Method of detecting a bend according to Claim 6, characterised in that the neural network has previously learnt geometries of bends and corresponding mathematical discriminations.

8. System for detecting a bend on a road implementing the method according to any one of Claims 1 to 7, characterised in that it comprises a camera (10) mounted in the vehicle, an image processing unit (20) and a neural network (21).

9. System of detecting a bend according to Claim 8, characterised in that the neural network is integrated in the image processing unit.

10. System for detecting a bend according to either one of Claims 8 and 9, characterised in that it is connected to a vehicle headlight, movable (30) or fixed and modulated for

intensity.